

Landscape Architecture PS & E Guide

SECTION 8

Irrigation Quantities

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Irrigation Quantities

General Guidelines

Irrigation Quantities Sheets are used on Highway Planting Projects to show the quantities of irrigation items being installed on the project (except fittings and control and neutral conductors). Quantity sheets are not included as part of road construction projects with landscaping.

The total of the items shown on these sheets may or may not be an actual bid item. For example, galvanized steel pipe between the water meter and through the backflow preventer assembly is to be shown on the Quantities Sheet even though it is paid for as part of backflow preventer assembly.

Column and Row Headings

Heading names may be altered to accommodate other types of irrigation controllers, valves, assembly units (Filter Assembly Unit), pipe, and conduit than shown.

Abbreviations (ABV)

Abbreviations should be those found on Standard Plan H1. Frequently used abbreviations are listed below. **Do not add periods to these abbreviations.**

Note: The abbreviations listed below are on the Irrigation Quantities sheets. If you are using an abbreviation that is not on the list or is non-standard, be sure to add it to the abbreviation list on the Irrigation Quantities sheet.

ABV	Description
BPA	Backflow preventer assembly
BV	Ball valve
CCA	Cam coupler assembly
CV	Check valve
CEC	Controller enclosure cabinet
CSP	Corrugated steel pipe
DIP	Ductile iron pipe
EA	Each
FAU	Filter assembly unit
FCV	Flow control valve
FS	Flow sensor
Ft	Foot/feet
FV	Flush valve
GSP	Galvanized steel pipe
GV	Gate valve
MCV	Manual control valve
PR	Pressure rated
PRV	Pressure reducing valve
PRLV	Pressure relief valve
QCV	Quick coupling valve
RCV	Remote control valve
RCVM	Remote control valve (master)
VAU	Valve assembly unit
WSP	Welded steel pipe
WS	Wye strainer

Irrigation Quantities IQ-1

SUBTOTALS PER VALVE ON LATERAL SUPPLY SIDE OF CONTROL VALVE

1		2		3				3		5		2		1			
DESCRIPTION		UNIT	VALVE OR ASSEMBLY NUMBER				SUBTOTALS		UNIT	DESCRIPTION							
PLASTIC PIPE SUPPLY LINE	PR 200											PR 200	PLASTIC PIPE SUPPLY LINE				
	PR 315												PR 315	PLASTIC PIPE SUPPLY LINE			
GSP												GSP	SPRINKLER TYPE				
SPRINKLER TYPE													SPRINKLER TYPE				

1 Description

Show pipe sizes followed by 'INCH' for each size used on the lateral side of the control valve or assembly units. Revise headings to accommodate other types of pipe. Show sprinkler types used.

2 Unit

Use linear feet "LF" for supply lines and 'EA' for sprinklers.

3 Valve or Valve Assembly Number or Cam Coupler Assembly

For Remote Control Valves, Cam Coupler Assembly and Valve Assembly Units (Filter Assembly Unit) show the valve code (controller letter and remote control valve number, i.e., A-1, A-2, etc., B-1, B-2, etc.). For manual control valves show the valve number, i.e., 1, 2, 3, etc.

4 Quantities

Total linear feet of lateral supply line by size for each control valve and/or assembly unit. Pipe quantities shall be rounded to the nearest five feet. Total number of each type of sprinkler for each control valve and/or assembly unit.

5 Subtotals

Show subtotals for each line with an entry. Subtotals for items may need to be rounded up. Refer to page 8-4 instruction 6 "Totals."

Note: Show a single dash in any box below a valve or assembly unit valve code does not contain a quantity. See sample Irrigation Quantities sheets at the end of this section.

Irrigation Quantities IQ-2

SUBTOTALS PER PLAN SHEET ON MAIN
SUPPLY SIDE OF CONTROL VALVE

1		2	3	5			
↓		↓	↓	↓			
DESCRIPTION		UNIT	SHEET NUMBER				SUBTOTALS
BPA							
	ENCLOSURE						
BOOSTER PUMP							
IRRIGATION CONTROLLER	STATION						
	STATION						
	STATION						
	CEC						
	SINGLE						
	DOUBLE						
VALVES AND ASSEMBLIES	RCV						
	GV						
	QCV						
	FV						
	FAU						
CONDUIT	WSP						
	CSP						
PLASTIC PIPE SUPPLY LINE	PR 200						
	PR 315						
GSP							
DIP							

TOTAL QUANTITIES

6	2	7		
↓	↓	↓		
TOTALS	UNIT	DESCRIPTION		
			BPA	
		ENCLOSURE		
		BOOSTER PUMP	IRRIGATION CONTROLLER	
		STATION		
		STATION		
		STATION		
		SINGLE	CEC	
		DOUBLE		
			RCV	
			GV	
			QCV	
			FV	
			FAU	
			VALVES AND ASSEMBLIES	
			WSP	
			CSP	
			PR 200	
			PR 315	
			PLASTIC PIPE SUPPLY LINE	
			GSP	
			DIP	
			SPRINKLER TYPE	

SEE INSTRUCTIONS ON NEXT PAGE

Irrigation Quantities IQ-2 (cont'd)

1 Description

Show Backflow Preventer Assembly, Valves and Assemblies (MCV, RCV, RCVM*, GV, QCV, FS, BV, CV, FCV, PRV, PRLV, WS, CCA, and FAU), Conduit (WSP and CSP), Plastic Pipe Supply Line (PR 200 and PR 315), Plastic Pipe (Irrigation Line), DIP and GSP sizes in inches followed by "INCH" for each item used on the supply side of control valves or assembly units. Revise headings to accommodate other types of valves, assembly units and pipe.

*Note: RCVM (Remote Control Valve (Master) is only shown separately when it is paid for as a separate item, i.e., when the valve is also a flow monitor and not just a standard valve. Otherwise the RCVM is included with the other RCV's and paid for as a RCV.

Show Irrigation Controller by total number of stations followed by "STATION" for each size.

2 Unit

Use 'EA' for Backflow Preventer Assembly, Backflow Preventer Assembly Enclosure, Irrigation Controller, Controller Enclosure Cabinet, Valves and Assemblies (MCV, RCV, RCVM, VAU, FS, GV, QCV, FV, BV, CV, FCV, PRV, PRLV, WS, CCA, and FAU) and 'LF' for Conduit (WSP and CSP), Plastic Pipe Supply Lines, Plastic Pipe (Irrigation Line), DIP and GSP.

3 Sheet Number

Show Irrigation Plan sheet number, i.e., II-1, II -2, II-3, etc.

4 Quantities

Show the total for each item on the main supply side of control valve (including control valve) by sheet. Pipe quantities shall be rounded to the nearest five feet.

Remote Control Valve (Master) is counted as an RCV
(See note above under "[Description](#)")

5 Subtotals

Show subtotals for each row with an entry.

6 Totals

Show totals for each item by adding subtotals from the lateral side of the control valve to the subtotals of the supply side of the control valves.

7 Description

Show all item descriptions used in the description columns from previous sheet(s) (Items on lateral supply side of valve) and this sheet (items on main supply side of control valve).

Note: Show dashes in any box below a plan sheet number that does not contain a quantity. See sample Irrigation Quantities Sheets at the end of this section.

Use linear feet 'LF' for supply lines, galvanized steel pipe or other pipe to be paid for as final pay (See the Standard specifications, Section 9-1.015).

Sample Irrigation Quantities IQ-1 & IQ-2

Sample Irrigation Quantities IQ-1 & IQ-2 follow on the next four pages. The Irrigation Quantities Sheets are made by placing the irrigation quantities CADD cells IQ-1 and IQ-2 for Caltrans produced projects and CADD cells IQ-1 and IQ-2 for consultant produced projects. The only difference between the Caltrans and consultant produced irrigation quantities is the sheet border.

The following pages show one page each for each type of sheet. On a real project use as many sheets as required.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		LANDSCAPE ARCHITECTURE	
CALCULATED- DESIGNED BY	CHECKED BY	REVISOR DATE	REVISION DATE

SUBTOTALS PER PLAN SHEET ON MAIN SUPPLY SIDE OF CONTROL VALVE

TOTAL QUANTITIES

DESCRIPTION

UNIT

SHEET NUMBER

SUBTOTALS

BPA

ENCLOSURE

BOOSTER PUMP

STATION

STATION

STATION

CEC SINGLE

CEC DOUBLE

VALVES AND ASSEMBLIES

RCV

GV

OCV

FAU

FV

WSP

CSP

CONDUIT

PR 200

PR 315

GSP

DIP

TOTALS

UNIT

DESCRIPTION

BPA

ENCLOSURE

BOOSTER PUMP

STATION

STATION

STATION

CEC SINGLE

CEC DOUBLE

VALVES AND ASSEMBLIES

RCV

GV

OCV

FAU

FV

WSP

CSP

CONDUIT

PR 200

PR 315

GSP

DIP

SPRINKLER TYPE

ABBREVIATIONS

BPA-backflow preventer assembly

BS-booster pump station

CV-check valve

CEC-controller enclosure cabinet

CSP-corrugated steel pipe

DIP-ductile iron pipe

EA-each

FAU-filter assembly unit

FCV-flow control valve

FS-flow sensor

FV-flush valve

GSP-galvanized steel pipe

GV-gate valve

MCM-manual control valve

Fi-foot/feet

PR-pressure rated

PRV-pressure reducing valve

PRLV-pressure relief valve

OCV-quick coupling valve

RCV-remote control valve

RCVM-remote control valve (master)

VAU-valve assembly unit

WSP-welded steel pipe

WS-wee strainer

DISCOUNT COUNTY ROUTE POST MILE TOTAL PROJECT SHEET NO. TOTAL SHEETS

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS AND AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT

IRRI-GATE

STATE OF CALIFORNIA

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES

0 1 2 3

USERNAME ==> USER
DCN FILE ==> REQUEST

CU 00000 EA 000000

IRRIGATION QUANTITIES IQ-2

LAST MODIFIED DATE MODIFIED ==> DATE
00-00-00 TIME MODIFIED ==> TIME

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LANDSCAPE ARCHITECTURE

CONSULTANT SENIOR LANDSCAPE ARCHITECT

CALCULATED BY

REVISOR BY

CHECKED BY

DATE REVISED

SUBTOTALS PER PLAN SHEET ON MAIN SUPPLY SIDE OF CONTROL VALVE

DESCRIPTION	UNIT	SHEET NUMBER																SUBTOTALS
BPA																		
ENCLOSURE																		
BOOSTER PUMP																		
STATION																		
STATION																		
STATION																		
CEC																		
SINGLE																		
DOUBLE																		
VALVES AND ASSEMBLIES																		
RCV																		
GV																		
OCV																		
FV																		
FAU																		
CONDUIT																		
WSP																		
CSP																		
PR 200																		
PR 315																		
GSP																		
DIP																		

ABBREVIATIONS

BPA—backflow preventer assembly
BV—ball valve
CV—check valve
CEC—controller enclosure cabinet
CSP—corrugated steel pipe
DIP—ductile iron pipe
EA—each
FAU—filter assembly unit

FCV—flow control valve
FS—flow sensor
FV—flush valve
CSP—galvanized steel pipe
GV—gate valve
MCV—manual control valve
Ft—foot/feet

PR—pressure rated
PRV—pressure reducing valve
PRV—pressure relief valve
OCV—quick coupling valve
RCV—remote control valve
RCVM—remote control valve (master)
VAU—valve assembly unit
WSP—welded steel pipe
WS—wye strainer

TOTAL QUANTITIES

TOTALS	UNIT	DESCRIPTION
		BPA
		ENCLOSURE
		BOOSTER PUMP
		STATION
		STATION
		STATION
		SINGLE
		DOUBLE
		CEC
		IRRIIGATION CONTROLLER
		VALVES AND ASSEMBLIES
		RCV
		GV
		OCV
		FV
		FAU
		CONDUIT
		WSP
		CSP
		PR 200
		PR 315
		GSP
		DIP
		SPRINKLER TYPE
		PIPE
		SUPPLY LINE

IRRIIGATION QUANTITIES

IQ-2

DIS: COUNTY ROUTE POST MILES TOTAL PROJECT SHEET NO. TOTAL SHEETS

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

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STATE OF CALIFORNIA

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES

0 1 2 3

USERNAME ==> USER
DWG FILE ==> REQUEST

CU 00000

EA 000000